

HAY FEVER—ITS CURE*

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My preliminary report of the treatment of hay fever by alcoholic injection was published in 1919 (Cal. State Journal Med., August, 1919).

I feel after treating one hundred and fifty additional patients, justified in the claim that my treatment cures hay fever. My practice is in a climate that is very dry and somewhat dusty—namely the San Joaquin Valley. Consequently there are a great many cases of hay fever. Formerly it was my custom to treat these patients with adrenalin, cocain spray, removal of spurs, and, in years past, by the removal of the turbinate bodies either in toto or in part, as well as by using all other methods of treatment then in customary use. The results were not satisfactory. Realizing the inefficiency of the mode of treatment, I determined to try a suggestion made to me by the late James A. Black of San Francisco—this being that alcohol injected into the nose would cure hay fever. There is no evidence that Black ever used the treatment extensively. If so he did not make further reference to it and I have not found any articles published by him in regard to it.

The first patient treated by this method suffered quite a severe reaction and the symptoms seemed to be much exaggerated for the first few days, after which the reaction subsided and the patient has not had a return of the trouble to this date. Naturally with this encouragement the treatment was carried out on other patients, at first with considerable doubt as to the results. Each patient was treated with the hope that the result might be successful but fearful that it would not be. Now, after several years' use of the alcoholic injection method of treatment, a cure is expected in every patient and failure causes much surprise.

Replies received to a questionnaire sent out in February of this year to one hundred prominent rhinologists in the United States and Canada, show only two men who had ever used the alcoholic treatment for hay fever. One specialist had used it to a considerable extent and a quotation from his letter is given below. The questionnaire was as follows:

How many cases of hay fever have you treated with vaccine?
What kind of vaccine used?
Did you use controls and specific vaccine or stock vaccine?
Kindly give results.
Have you used the alcoholic injection method?
How many cases?
What results?

The replies show that a great many rhinologists do not treat hay fever at all, nevertheless they seem to be interested, as many asked for reprints of my paper. About 40 per cent of the answers indicated that they had used the vaccines to a greater or less extent. Some had used stock vaccines from many manufacturers, while others had gone into the matter more scientifically and tested the patient for the specific pollen to which he

seemed to react and then treated each patient with a vaccine especially prepared or selected for the individual. The consensus of opinion from the replies received would indicate that those who had used the vaccine in any manner whatever had not been entirely satisfied with the results and that the relief obtained was in not more than fifty per cent of cases. Furthermore the benefit is evidently only temporary lasting perhaps during the season in which the treatment is given, or only while being administered. Certainly my results obtained by the use of alcohol in the treatment of this disease during the past six or seven years have been much better than those obtained by the use of vaccine. While the number of cases is perhaps not so large, many of the cases treated several years ago have had no return of the trouble, although they had been severe sufferers each summer for years previous to the treatment. I now expect about 90 per cent of cures.

Frank R. Spencer of Boulder, Colorado, reported that he had treated several cases with alcohol but did not state his method. He reported some as benefited, others not.

An extract from a letter received from Walter Reedy of Scranton, Pa., gives his experience with the alcoholic treatment. Reedy's plan is entirely different from my own and I quote the following from his letter:

"Injecting the nasal nerve (part of the naso palatine) as they entered the nostrils under the alae nasi. The alcohol was injected on both sides of the fraenum where the mucous membrane is reflected from the upper jaw to the lip. Through infiltration, when successfully done, the nerves are blocked. The patient complains of a numbness of the tip of the nose and upper lip. One patient called it a 'wooden nose.' I have used it in a number of cases of hay fever, rose fever, etc., and where the nerve block has been successful, the results have been good."

My technique has been to inject several minims of 95 per cent alcohol into each lower turbinate beginning at the posterior end and making three or four injections into the body of the turbinate with a long slender needle, also two or three injections of a similar amount of alcohol along the surface of each side of the septum. This is done in each nostril. No attention has been given to any special nerve or group of nerves.

The worst feature encountered in my method of treatment is that it is painful. No local anesthetic has been found that will prevent pain upon the injection of 95 per cent alcohol into the tissue. The patient has no feeling when the needle is inserted, but upon the injection of the alcohol the pain seems to radiate from the nose through the nerves up into the face and superorbital region and for something like a minute or two it is very severe. This is the most disagreeable feature in the treatment and it has kept some patients from receiving the benefit of the treatment who otherwise would have submitted to it. Very nervous patients may, of course, be given a general anesthetic and in the future I expect to use a general anesthetic more frequently rather than try to do the work under local anesthesia.

In most cases there is considerable reaction.

* Read before the Eye, Ear, Nose and Throat Section of the California Medical Association at Yosemite National Park, May 16, 1922.

The mucous membrane is swollen and the patient has a disagreeable sensation of tumefaction for several days, after which it disappears. In many cases, within twenty-four hours the sneezing and disagreeable nasal irritation typical of hay fever disappears permanently. In a few cases the trouble has returned the following season and the patient had to submit to a second treatment. In cases where the results have not been good, the trouble appears to be due to faulty technique by which the alcohol escaped into the throat, or due to improper insertion of the needle, it may have passed through the turbinates and escaped behind into the pharynx. It is not as easy to confine the alcohol entirely to the turbinates as one would suppose and if particular care is not used more or less of it will be lost. When the alcohol is properly injected under local anesthesia, more or less intense pain immediately follows, whereas when it is not properly placed there is no pain. This in one way is a benefit as one can feel assured when the pain immediately follows the injections that the alcohol has been properly placed. Lately I have tried H. M. C. Compound hypodermatically together with local anesthesia which has seemed to lessen the pain somewhat. It is possible that this with local anesthesia will prove sufficient without resorting to a general anesthetic. Submucous resections and other operations may be combined with this treatment.

CASE REPORTS

One case reported in my former paper of August, 1919, was of a young man age 17, who had suffered for years from hay fever, so severe that each summer he was unable to work. He was treated four years ago and within a week was entirely relieved and able to work in the hay field with no return of the trouble. In a recent report he states that he has been entirely cured and is now having no trouble whatever.

Abstracts from the records of a few additional cases are submitted:

Miss H., age about 30 years, complained of hay fever for six or seven years. As a result of the trouble she was compelled to go to the coast each summer. She was given the alcohol injection on June 2, 1919, since which time she has had no return of the disease.

Mr. E., age about 65 years, referred to me by the mother of the young man previously mentioned in the former article. Mr. E. had suffered for twenty-five years from hay fever; had traveled extensively seeking relief and consulted numerous physicians without benefit. One treatment gave him complete relief.

Mr. T., age 19, had suffered for years. Was treated in 1919 and has had no return of the trouble to this date.

Mrs. C., age 19, treated six years ago. She was a severe sufferer from hay fever, practically an invalid during the summer months. A report received from her during the past week advises that she has been practically free from hay fever since the treatment.

Many other cases might be reported.

CONCLUSION

The great benefit of my method is that one treatment is usually all that is required to give permanent relief, whereas with vaccines many injections are required and the treatment must be kept up indefinitely. With the alcoholic treatment I obtain a cure or relief in 90 per cent of cases.

THE EFFECT OF MASSAGE, HEAT AND EXERCISE ON THE LOCAL CIRCULATION*

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Despite the value of physiotherapeutic methods in the treatment of diseases which involve the extremities, we are still relatively ignorant of the manner in which these produce their beneficial effects. This is so largely because the study of joint and muscle functions has hardly advanced beyond the simplest measurements of motion and strength. Broadly speaking, physiotherapy is still in an empiric stage. Its methods have been and are being developed by the method of countless trials in one direction or another. The rational explanation of the results obtained is still fragmentary and scientific studies have not advanced sufficiently far in this field to give to physiotherapy the assistance already given to drug therapy and to treatment by the methods of immunology. None the less, a consideration even of certain functional changes, produced by physical methods of treatment, helps to clarify one's conception of what is happening in the tissues during the treatments.

My interest in this subject was awakened by studies on the blood flow in the arm which were carried out several years ago in association with J. G. Van Zwalenburg and others. These studies demonstrated plainly that the blood flow in the arm was readily and markedly influenced by certain physiotherapeutic procedures and that it was relatively unaffected by powerful drugs given in full therapeutic doses. Though our experiments have been published for some time it may yet be of interest to review the results, together with results of others, on account of the light they throw on certain methods commonly used in physiotherapy.

The arm is composed of skin, muscle and bone, together with various connecting tissues. Changes of circulation which occur in the arm may be assumed to occur under similar conditions at other portions of the surface of the body, where skin, muscle and bone make up the major part of the tissue.

It is well known that heat tends to increase the amount of blood in the heated tissues. The arm is said to swell as much as 70 c.c. when heated. Cold, if not too intense and too prolonged, has an opposite effect. Rings, gloves and shoes fit more loosely when one is chilly and more tightly when one is warm. These changes in volume are accompanied by corresponding changes in the rate of blood flow. The continued application of hot water to the arm increases the local rate of blood flow from four to eight times, and the continued application of cold causes the local rate to fall to one-half or one-fourth of the original. In one of our experiments, for example, the range of blood flow in the arm as a result of thermic influences varied from 2 to 40 c.c. per 100 c.c. of arm substance per minute.

The increased rate of blood flow produced by

* Read before the Section on Technical Specialties (California Association of Physiotherapists) at the Fifty-first Annual Meeting of the California State Medical Society.